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# The Indian Health Service Approach to Alcoholism Among American Indians and Alaska Natives

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## Synopsis .....

*The transfer to the Indian Health Service (IHS) of 158 alcohol treatment programs that had been administered by the National Institute on Alcohol Abuse and Alcoholism began in 1978. Today, approximately 300 alcohol and substance abuse treatment programs offer services to American Indians, among them primary residential treatment, halfway houses, outreach, and aftercare. This system provides a national network upon which additional activities may be established.*

*Along with increasing its attention to health promotion and disease prevention, the IHS has moved toward the prevention of alcoholism. A variety of preventive programs are in place that emphasize improved self-image, value and attitude clarification, decision-making, and physical and*

*emotional effects of alcohol and substance abuse. Many begin as Head Start programs and continue through adulthood.*

*In 1986, after consulting with both academic and tribal experts, the IHS devised a strategic plan for alcoholism control that stresses comprehensive care and prevention activities; it serves as a guide for further program development. The Secretary of Health and Human Services created a Task Force on Indian Alcoholism in 1986 to serve as a coordinating body for activities carried out by the IHS and other agencies and units of the Department. Passage of the Anti-Drug Abuse Act in 1986 added resources for the development of adolescent treatment centers and, more importantly, for community-based pre- and post-residential care for youths and their families. Concomitant with these initiatives have been several instances of increased attention by various tribes to the problem of alcoholism.*

*The IHS strategic plan, together with the Secretary's initiative, the Anti-Drug Act, and tribal actions, has added substantial momentum to efforts directed at controlling alcoholism among American Indians. Although the mortality rate from alcoholism is about four times greater for the American Indian population than for the entire U.S. population, it decreased from 54.5 per 100,000 population to 26.1 between 1978 and 1985—a reduction of 52 percent.*

*The philosophy of the IHS in emphasizing prevention of disease and promotion of wellness provides an opportunity for continuing the considerable progress already made. The critical and decisive role played by the Indian communities themselves will determine whether ultimate success can be achieved.*

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**A**LCOHOLISM AMONG AMERICAN INDIANS, although known to be a serious problem, was not the primary concern among physicians and health care workers for several years after the Indian Health Service (IHS) was established in 1955. Until the late 1960s, the major focus was on controlling acute

and chronic infectious diseases that were both devastating and more amenable to therapy.

In 1969, when success in controlling infectious diseases had been realized, and the effects of alcoholism had become increasingly devastating, the IHS declared the intensification of efforts to

Table 1. Leading causes of death among American Indians and Alaska Natives, all ages, in States with reservations, 1983-85 (mortality rates per 100,000 population)

Causes	Number of deaths <sup>1</sup>	Mortality rate <sup>2</sup>
All causes .....	20,110	474.0
Diseases of the heart .....	4,685	110.4
Accidents .....	3,218	75.9
Motor vehicle .....	1,753	41.3
Other accidents .....	1,465	34.5
Malignant neoplasms .....	2,725	64.2
Cerebrovascular diseases .....	969	22.8
Chronic liver diseases and cirrhosis .....	924	21.8
Pneumonia and influenza .....	682	16.1
Diabetes mellitus .....	676	15.9
Homicide .....	597	14.1
Suicide .....	581	13.7
Certain conditions originating in the perinatal period .....	387	9.1
All other .....	4,666	...

<sup>1</sup> The number of deaths in a 3-year period is used because of the small numbers of deaths each year.

<sup>2</sup> Because the denominator is a 3-year sum of the population, the rate may be regarded as an annual average rate.

NOTE: Connecticut, Rhode Island, and Texas were included as reservation States beginning in 1983, and Alabama in 1984. Data include 17 deaths with age not reported.

deal with alcoholism to be a high priority. The Comprehensive Alcohol Abuse Treatment, Prevention, Rehabilitation Act of 1970 (PL 91-616) authorized that treatment facilities be established for Indian people. Initially, the responsibility for carrying out the programs was placed with the National Institute on Alcohol Abuse and Alcoholism (NIAAA).

The transfer of "mature" programs from NIAAA to IHS was begun in 1978, when 36 programs were transferred. By 1983, after having received support from NIAAA for 6 years, a total of 158 programs had been transferred. In developing these programs, IHS focused on (a) defining the scope of alcohol treatment and prevention at all levels, (b) improving the quality of care provided to persons in alcohol treatment programs, and (c) seeking ways to expand services available to Indian people.

## Mortality Rates

Although alcoholism as a specific diagnosis (coded 303 or 305.0 in the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)) does not occur as one of the leading causes of death among American Indians, its impact upon the mortality of Indians may be inferred from data shown in table 1, which depicts

the 10 leading causes of death. Because the majority of deaths classed as "accidents" seem to be alcohol-related, and most of the deaths from chronic liver disease are, in fact, from cirrhosis that is associated with alcoholism, it is clear that alcoholism and its secondary effects play a preponderant role in the overall mortality of American Indians.

The mortality rate, expressed as rate per 100,000 population, for chronic liver disease and cirrhosis nearly equals that for cerebrovascular disease and exceeds that for diabetes, or pneumonia and influenza. At 29.2 per 100,000, the rate is three times greater than that for the general U.S. population. For Indians ages 15 to 24, it is the ninth leading cause of death; for Indians ages 25 to 44, it is the second leading cause of death, with a rate of 31.6 per 100,000 compared with 5.9 per 100,000 for the general population in that age group (1).

Age-adjusted deaths and mortality rates for Indians compared with the category "U.S. all races" for the 8-year period 1978-85 are shown in table 2. The mortality rate for Indians decreased from 54.5 per 100,000 in 1978 to 26.1 per 100,000 in 1985, a reduction of 52 percent. The comparable figures for the category U.S. all races were 8.1 per 100,000 in 1978 and 6.2 per 100,000 in 1985, a decrease of 23 percent.

In table 3 are shown the deaths and death rates for all alcohol-related deaths in each IHS Area for the 3-year period 1981-83 (2). The wide variation in population precludes a comparison of the numbers of deaths among the various Areas. Areas with the highest mortality rates from alcoholism are Billings, MT (136.9 per 100,000) and Phoenix, AZ (103.6 per 100,000). These rates compare with the rates 32.7 per 100,000 and 34.1 per 100,000, respectively, for the Alaska and Navajo Areas. Data for various rates, including mortality, in California and Oklahoma, where discrepancies appear—possibly as the result of persons being identified as Indians at the time of birth but not at death—make it very difficult to reach accurate conclusions. In any case, the mortality rate in each Area is considerably greater than that for the U.S. all races category.

## IHS's Strategic Plan

In 1985, the Director, IHS, convened a group of persons who have a wide range of skills and experience to review existing alcoholism programs and to make recommendations regarding the future direction for IHS. A series of working groups

Table 2. Deaths from alcoholism<sup>1</sup>, age-adjusted mortality rates<sup>2</sup>, and ratios of age-adjusted mortality rates, Indians to U.S. all races, for American Indians and Alaska Natives in States with reservations, 1978-85

Calendar year	Number of deaths		Age-adjusted rates		Ratio: Indian to U.S. all races
	Indian and Alaska Native	U.S. all races	Indian and Alaska Native	U.S. all races	
1985	281	15,844	26.1	6.2	4.2
1984	316	15,706	30.0	6.2	4.8
1983	293	15,424	28.9	6.1	4.7
1982	298	15,596	30.7	6.4	4.8
1981	338	16,745	35.8	7.0	5.2
1980	382	17,742	41.3	7.5	5.5
1979	398	17,064	45.1	7.4	6.1
1978	437	18,490	54.5	8.1	6.7

<sup>1</sup> Deaths from alcoholic psychoses, alcohol dependence syndrome, and chronic liver disease and cirrhosis specified as alcoholic.

<sup>2</sup> Mortality rates per 100,000 population.

made more than 100 recommendations covering the entire field of alcohol abuse. A major theme of the review was that future efforts should be prevention oriented, especially prevention targeted to youth. The discussions and recommendations became the basis for a strategic plan (3) dealing with alcohol abuse as a major policy issue, resource management, quality assurance, coordination of activities, training and research. Fifty specific action steps with time frames for accomplishment are contained in the plan. This plan has served as an important guide for the IHS in its continued efforts to control alcoholism among Indian people.

### Community and School Prevention Activities

For several years, the IHS and Indian communities have been increasing the number of alcoholism prevention activities they offer. Adults who are served by IHS-funded programs have been provided routinely with education about alcohol and its effects. Expectant mothers receiving prenatal care at IHS clinics and hospitals are supplied information about fetal alcohol syndrome. A number of Indian communities have developed an impressive array of prevention services and resources.

Owan and coworkers (4) conducted a survey of schools and community prevention activities among Indian communities during the period October 1986 to March 1987. They collected information from 420 schools and 160 tribal groups in an effort to determine the extent of prevention programs aimed specifically at the youth. They found that a number of schools used curriculums such as "Here's Looking at You," "Project Charlie," and "Beginning Alcohol and Addiction Basic Education Studies (BABES)" (see box, page 625), which emphasize

Table 3. Alcohol abuse mortality<sup>1</sup>

Population	Deaths	
	Number	Rate
United States, 1982	31,993	12.3
IHS Areas, 1981-83:		
All areas	1,025	52.7
Aberdeen	110	89.3
Alaska	46	32.7
Albuquerque	68	75.0
Bemidji	35	39.7
Billings	102	136.9
California	33	20.9
Nashville	23	35.0
Navajo	107	34.1
Oklahoma	149	32.8
Phoenix	183	103.6
Portland	136	79.0
Tucson	33	97.9

<sup>1</sup> National Center for Health Statistics data for underlying cause of death. Included are deaths from alcohol dependence syndrome (ICD-9 code 303), alcoholic psychoses (ICD-9 code 291), nondependent use of drugs (ICD-9 code 305), and chronic liver disease and cirrhosis (ICD-9 code 571.0-571.9).

<sup>2</sup> Because of the small numbers, calculations are made on 3-year totals, then expressed as an annual age-adjusted rate per 100,000 population.

values and attitude clarification, decision-making, and the physical and emotional effects of alcohol and substance abuse. More than 1,500 persons were involved in prevention programs in schools attended by Indian children, including teachers and their aides, Indian parents, and alcoholism counselors, among others. One of the benefits of these programs is that they prompted a number of referrals of students for counseling. In addition, several student and parent groups were formed, including peer counseling groups, Students Against Drunk Driving, Chemical People, and Mothers Against Drunk Driving.

The study showed that community-based services were provided for men and women, adolescents,

parents, and single parents. Many of the school-based curriculums were also used in community-based programs. Special activities such as parent effectiveness training, "Children Are People," "Trails," and "Circles of Life" (see box) were offered. A total of 312 communities and 31,946 people participated in the programs.

Community-based programs provided alcohol and drug education and activities designed to build self-esteem and coping skills, develop decision-making skills, promote family bonding and enrichment, and teach effective parenting. The survey revealed a wealth of activities and information about the programs, including the information that local Indian people and substance abuse program directors were appearing on local public service TV stations and making radio presentations to discuss substance abuse issues of concern to their communities.

### **Fetal Alcohol Syndrome**

After a major study in 1983 of the incidence and prevalence of fetal alcohol syndrome (FAS) among selected tribes, the IHS initiated a training program for health care workers in every IHS Service Unit. A total of 1,279 community-based workers were trained to promote understanding of FAS and fetal alcohol effect (4) and to assist communities in the development of prevention and intervention programs. The IHS funds research directed at defining the extent of FAS and long-term followup of children with FAS. Attention to the FAS-associated problems continues to be an integral part of prevention activities and is especially emphasized in prenatal clinics.

### **Alcohol-Related Research**

Participants of the Alcoholism Program Review of 1985 made four major recommendations for alcoholism and substance abuse research (4):

- the focus of IHS-funded research should be prevention,
- applied research should be emphasized,
- studies on the characteristics of American Indians and Alaska Natives who do not abuse substances should be encouraged,
- IHS should update morbidity-mortality data at the service unit level.

The implementation of these recommendations resulted in the development of model demon-

stration programs for health promotion-disease prevention that focus on alcohol or other drugs. Morbidity data may still be underreported, particularly in areas such as California and Oklahoma, as mentioned earlier, and attention is being given to determining the extent and effects of this problem. Concerted training efforts for physicians and other health care providers are expected to contribute to more accurate reporting of alcohol- and other drug-related morbidity and mortality. Finally, the study of various health needs of American Indian and Alaska Native people remains a high priority. The IHS and the Alcohol, Drug Abuse, and Mental Health Administration are jointly engaged in an effort to stimulate research concerning alcoholism among Indians. An important part of this effort is the identification and support of young Native American researchers who may be interested in pursuing a research career in this field.

### **Secretary's Initiative**

As part of his special emphasis programs, the Secretary of Health and Human Services, Otis R. Bowen, MD, established, on June 3, 1986, the Secretary's Indian Alcoholism Initiative, with the IHS having the lead responsibility. The charge to the task group established to carry out the initiative was

1. to ensure a permanent, coordinated effort to combat the serious health problem of alcohol and substance abuse among American Indians and Alaska Natives by drawing on the Department's expertise in health promotion and disease prevention,
2. to restructure activities permanently, rather than provide a time-limited campaign,
3. to provide training of health professionals,
4. to involve lay efforts within tribes, including coordination with the Indian schools.

As part of this effort, the Secretary created an interagency task force made up of representatives from the Administration on Aging; Alcohol, Drug Abuse and Mental Health Administration; Administration for Children, Youth, and Families; and the Office of Minority Health. This initiative has resulted in several new activities being carried out through memorandums of agreement between the IHS and other agencies. For example, the Administration on Aging provides 11 grants dealing with Indian alcoholism. The Administration for Native

Americans provides five grants for resolving chemical dependency and four for youth entrepreneurial activities. The Administration for Children, Youth, and Families is studying placement issues with families involved with alcohol abuse, in addition to addressing alcohol and drug abuse in the home through 104 Head Start programs.

Twelve grants have been awarded by the Alcohol, Drug Abuse, and Mental Health Administration on issues dealing with the impact of mental illness on prevention, treatment, and rehabilitation of alcohol abusing patients, as well as basic and applied research in preventive intervention. The Office of Minority Health has created a task force to disseminate and utilize information on minority projects in order to identify and assess successful projects.

A second major effort resulting from the Secretary's Initiative is the development of a task force composed of representatives of the Administrations within the Department, the IHS, and the Bureau of Indian Affairs (BIA). This task force monitors activities concerning the initiative and reports to the Secretary on progress.

### **1986 Anti-Drug Abuse Act**

Title IV of the Anti-Drug Abuse Act of 1986 (PL 99-570) authorized funding to address many of the needs identified in the IHS Alcoholism and Substance Abuse Action Plan. The Act required the development of a memorandum of agreement between the Departments of Health and Human Services and Interior, along with tribal consultation, to provide for a coordinated effort to address alcohol and substance abuse in American Indian and Alaska Native communities. That agreement was signed in March 1987 and identified both long- and short-term requirements and assigned lead responsibility for various tasks to either the IHS or the BIA.

Public Law 99-570 provided for the development of two specific types of youth services: A regional treatment center for acute detoxification and rehabilitation in each IHS Area, with the Phoenix and Tucson Areas to share a center, and community-based rehabilitation and followup services within each IHS Service Unit.

Two regional youth treatment centers have opened—one in Tahlequah, OK, and the other at the Acoma-Canoncito-Laguna Service Unit, NM. The remaining nine are in various stages of development, depending upon the special plans and programs designed by the IHS and the tribes in

## **School- and Community-Based Prevention Programs**

### *Curriculums*

**Here's Looking at You:** Original materials that were produced by the Comprehensive Health Education Foundation, 20832 Pacific Highway South, Seattle, WA 98198-5997, have been revised as "Here's Looking at You 2000" by Roberts, Fitzmahon and Associates. This complete drug education curriculum begins in kindergarten and continues through high school. Address: Roberts, Fitzmahon and Associates, 9131 California Ave., SW, Seattle, WA 98136, telephone (206) 932-8409.

**Project Charlie:** Chemical Abuse Resolution Lies in Education (Charlie) is a Storefront/Youth Action drug prevention program originally funded through the Community Education Training Act. Address: Project Charlie, 5701 Normandale Road, Edina, MN 55424.

**BABES:** Beginning Alcohol and Addiction Basic Education Studies (BABES) was developed by the National Council on Alcoholism (NCA) in Detroit, MI, in 1978. It is available through any NCA affiliate. Address: NCA, 17330 Northland Park Court, Southfield, MI 48075.

### *Community Programs*

**TRAILS:** Testing Realities and Investigating Life Styles (TRAILS) is a program of alternative activities for youth. Contact: Ms. Nancie Young, Division of Community Services, Department of Health and Social Services, 1 W. Wilson St., P.O. Box 7851, Madison, WI 53707.

**Circle of Life:** Circle of Life is an annual training seminar in Michigan for Indian and non-Indian service workers. It is sponsored by tribes and financed with Federal and State funds.

**Children Are People:** Children Are People is a program that deals with sociological-emotional implications of drug abuse. Address: Children are People, Inc., 1599 Selby Ave., St. Paul, MN 55104.

each Area. Each center will have an average of 24 beds for adolescents. The expected length of stay is 45-90 days. Individualized, multidisciplinary assessment and treatment plans with a family component and aftercare coordination will be emphasized.

*' . . . it is clear that alcoholism and its secondary effects play a preponderant role in the overall mortality of American Indians.'*

Hiring of community rehabilitation staff at tribal and IHS facilities continues. More than one-half the needed skilled personnel have now been placed on duty. In addition, community education and training of staff have resulted in more than 5,000 persons being trained in basic concepts of alcohol and substance abuse and the special needs for prevention activities directed at youth. These efforts are continuing.

A unique provision of the Act was the authorization and funding to establish community-based programs for health promotion and disease prevention. Ten programs were competitively awarded funding in fiscal year 1987, covering activities such as teen clinics, fitness programs, and programs targeted at the prevention of alcohol and substance abuse among young Indians.

### **Tribal Activities**

In the past, a major barrier to improving alcoholism prevalence rates has been the practice of not interfering with individual decisions, sometimes manifested as apathy, on the part of Indian communities, and lack of community sanctions against alcohol abuse. It appears to have been common experience for family members, for example grandparents, to excuse unacceptable behavior and even facilitate it by paying bills, including bail, and placing responsibility on others rather than the alcohol abuser themselves. Native American noninterference has been described by Good Tracks (5).

Regardless of the source of the community's acceptance of alcoholism, a turning point may have been reached with the experience of the Alkali Lake community in Canada, along with the growth of health promotion concepts in Indian communities. It has been reported that the Alkali Lake Band of Indians addressed alcoholism as a major problem by mobilizing the community against it (6). This move was stimulated by a recovering woman and her husband who later became chairman of the band. An essential component appears to have been a declaration that the community would no

longer tolerate a high rate of alcoholism. Although it is too early to ascertain whether such action is effective, an increasing number of Indian communities in the United States are concluding that only the community itself can eliminate alcohol abuse. An increasing number of organizations such as Students Against Drunk Driving have been formed, and public declarations have been made by tribes that they intend to become alcohol free. For example, the Cheyenne River Sioux Tribe recently passed this resolution (7):

BE IT FINALLY RESOLVED, for the spiritual well-being of our children and families, and for the survival and strengthening of our Districts from this day forward, let it be known that the Council of the Cheyenne River Sioux Tribe have declared war on all that is associated with alcohol and drug abuse and strive for the goal that by the year 2,000 the Cheyenne River Reservation will be 100 percent drug and alcohol free.

Recently, a group of teenaged persons on the Cheyenne River Reservation demanded that the tribe take action to decrease the amount of alcoholism on the reservation. Such action, along with a positive response by the tribe, would have been unthinkable a few years ago. The general impression is that a distinct change in the attitude of many tribes toward alcoholism has occurred, and many are beginning to take actions directed at solving the problem. In some tribes, this has taken the form of requiring sobriety among persons elected to tribal office. The presentations made on local TV and radio stations mentioned earlier are another model of community prevention activities.

### **Discussion**

Many of the recommendations contained in the IHS strategic plan have been acted upon. In yearly individual work plans for the senior managers of IHS, preventive activities, among them alcoholism prevention, are included. This element serves not only to emphasize the importance of the effort, but also to provide a method by which specific actions can be instituted and measured. Another result has been the announcement that the official policy of the IHS is that alcoholic beverages not be served at any official social function. This appears to have been an important gesture not only for employees but for Indian people as well, indicating that the IHS has taken the challenge of alcoholism seri-

ously. The strategic plan has also placed the IHS in a favorable position to respond readily to the Secretary's Initiative and to the passage of the Anti-Drug Abuse Act.

The steady fall in the mortality rate associated with alcoholism indicates that the problem, once thought of as hopeless, is, in fact, lessening—and at a more rapid rate than for the United States' all races population. It is as important to focus on this fact as it is to focus on the statistic that the mortality rate among Indians is more than four times higher than that for the U.S. all races group. Death rates associated with alcoholism appear to be highest in the IHS Areas of Billings, Phoenix, Tucson, and Aberdeen. This inter-Area variation is seen for other diseases and conditions. Such variation provides opportunities for investigation and, of equal importance, it is a source of information useful in targeting activities to the communities with the greatest needs.

The present philosophy of the IHS concerning health interventions was expressed in the July–August 1987 issue of *Public Health Reports* (8). Attention is given to lowering specific morbidity and mortality rates for the population served by the IHS. This will be accomplished by ensuring that the IHS service population (a) has a general knowledge of a number of health factors, (b) reduces and, where possible, removes various risk factors, and (c) targets efforts to those conditions that are responsible for, or contribute the most to, years of life lost prematurely.

The efforts for controlling alcoholism fit very well into this philosophy. The survey of community- and school-based prevention activities (3) indicates that in addition to a gratifying number of existing activities, there is an excellent infrastructure involving the Head Start Program, BIA- and tribally-operated schools, and other community organizations and activities upon which to expand present programs.

Progress to date with the implementation of PL 99–570 suggests that intervention and treatment for Indian adolescents will facilitate the early arrest of alcoholism and other drug dependency and, consequently, prevent drug-related illnesses, injuries, and mortality. In addition, it will make possible the dealing with dependency before the adolescent becomes a parent, thereby breaking the intergenerational cycle present in so many Indian families. The treated adolescent may be returned to the educational system during the life-stage when it is easiest to develop knowledge and skills necessary for a healthy, productive adulthood. Finally, dealing

with adolescents will afford an opportunity to intervene with parents and family members.

Rehabilitation and aftercare services are essential to the proper functioning of a program for adolescents. Such services permit the coordination of efforts by a multidisciplinary team to screen and appropriately place Indian youths in inpatient or outpatient programs for treatment of chemical dependency. Case management, including collateral services for the youth and family and identification of Indian children whose primary problem is behavioral or educational, rather than substance abuse, will also be possible through aftercare services.

Obviously, success will not be achieved except by continued efforts applied over time. The IHS is committed to this approach and has declared its intention to control alcoholism among American Indians and Alaska Natives by the year 2000. Success will depend upon the Indian communities being committed to eliminating alcoholism. As stated in recent testimony before the Senate Select Committee on Indian Affairs, “. . . when the [American Indian/Alaska Native] communities take responsibility for their own wellness, especially as it relates to alcoholism and substance abuse, IHS and other efforts in the provision of resources and expertise will have a far greater benefit” (9). The increasing number of tribes that appear to be prepared to undertake this important responsibility is reason for substantial optimism, indeed.

#### References.....

1. Indian Health Service chart series book. Indian Health Service, Rockville, MD, April 1988.
2. Indian health conditions. Indian Health Service, Rockville, MD, June 1986.
3. Indian Health Service school/community-based alcoholism substance abuse prevention survey. Indian Health Service, Rockville, MD, 1987.
4. IHS alcoholism/substance abuse prevention initiative. Indian Health Service, Rockville, MD, 1986.
5. Good Tracks, J. G.: Native American non-interference. Social Work 18: 30–34, November 1973.
6. Alkali Lake Indian Band: “The Honor of All” video documentary. Phil Lucas Productions, Inc. Issaquah, WA, 1987.
7. Tribal Resolution No. 313–87–CR. Cheyenne River Sioux Tribe, Nov. 4, 1987.
8. Rhoades, E. R., et al.: The Indian burden of illness and future health interventions. Public Health Rep 102: 361–368, July–August 1987.
9. Rhoades, E. R.: Testimony (manuscript) before the Senate Select Committee on Indian Affairs, Washington, DC, Nov. 5, 1987.